

IN THE CLAIMS

1. (Currently Amended) A new media identification system comprising:

at least one analysis module to receive a data stream from one or more of a plurality of sources, the data stream including data for a work, to generate a representation of the work from at least a portion of said data stream, and to transmit said representation;

at least one First Tier identification server to receive said representation, to determine whether said work from said representation is identifiable, to determine whether said representation is a new representation based on comparing the representation to previously received unidentified representations maintained in a data record [[if]]when said work is not identifiable, wherein the representation is a new representation if the representation is not similar to a previously received unidentified representation, to add the representation to the data record [[if]]when the representation is a new representation, and to send said representation to at least one Second Tier identification server [[if]]when said representation is not a new representation, wherein said representation is not sent to the at least one Second Tier identification server [[if]]when said representation is a new representation; and

the at least one Second Tier identification server to identify said work from said representation [[if]]when the Second Tier identification server receives said representation.

2. (Previously Presented) The system of claim 1, wherein said at least one analysis module further includes an input port configured to receive said data from a networked source.

3. (Previously Presented) The system of claim 1, wherein said at least one analysis module further includes an input port configured to receive said data from a broadcast source.

4. (Previously Presented) The system of claim 1, wherein said at least one analysis module further includes an input port configured to receive said data in the form of a pre-broadcast digital form.
5. (Previously Presented) The system of claim 1, wherein said at least one analysis module and said at least one First Tier Identification server are coupled over a network.
6. (Original) The system of claim 5, wherein said network comprises the Internet.
7. (Previously Presented) The system of claim 1, wherein said representation comprises feature vectors.
8. (Previously Presented) The system of claim 1, wherein said representation comprises a spectral representation of said received work.
9. (Previously Presented) The system of claim 1, wherein said representation comprises the text output of a speech recognition system.
10. (Previously Presented) The system of claim 1, wherein said representation comprises the musical score output of a music transcription system.
11. (Previously Presented) The system of claim 1, wherein said representation comprises a bit calculated key.

12. (Previously Presented) The system of claim 1, wherein said First Tier Identification server is configured to identify said received work using feature vectors from said representation.

13. (Previously Presented) The system of claim 1, wherein said First Tier Identification server is configured to identify said received work using a spectral representation from said representation.

14. (Previously Presented) The system of claim 1, wherein said First Tier Identification server is configured to identify said received work using the text output of a speech recognition system from said representation.

15. (Previously Presented) The system of claim 1, wherein said First Tier Identification server is configured to identify said received work using the musical score output of a music transcription system from said representation.

16. (Previously Presented) The system of claim 1, wherein said First Tier Identification server is configured to identify said received work using a bit calculated key from said representation.

17. (Previously Presented) The system of claim 1, wherein said Second Tier Identification server is configured to identify said received work using feature vectors from said representation.

18. (Previously Presented) The system of claim 1, wherein said Second Tier Identification server is configured to identify said received work using a spectral representation from said representation.

19. (Previously Presented) The system of claim 1, wherein said Second Tier Identification server is configured to identify said received work using the text output of a speech recognition system from said representation.

20. (Previously Presented) The system of claim 1, wherein said Second Tier Identification server is configured to identify said received work using the musical score output of a music transcription system.

21. (Previously Presented) The system of claim 1, wherein said Second Tier Identification server is configured to identify said received work using a bit calculated key.

22. (Original) The system of claim 1, wherein said at least one analysis modules are further configured to receive a plurality of streaming sources for analysis at a single location.

23. (Original) The system of claim 1, wherein said at least one analysis modules are further configured to receive a plurality of streaming sources for analysis at a plurality of different access points of the network.

24. (Previously Presented) The system of claim 1, wherein said at least one analysis module is configured to provide said representations to said at least one First Tier Identification server at a predetermined time interval.

25. (Original) The system of claim 24, wherein said predetermined time interval comprises at

least once a day.

26. (Original) The system of claim 24, wherein said predetermined time interval comprises approximately once an hour.

27. (Previously Presented) The system of claim 24, wherein said at least one analysis module is configured to provide said representations to said at least one First Tier Identification server responsive to generating said representation.

28. (Previously Presented) The system of claim 24, wherein said at least one analysis module is configured to provide said representations to said at least one First Tier Identification server based on an out-of-band event.

29. (Previously Presented) The system of claim 1, wherein said First Tier Identification server is further configured to generate a playlist of identified works.

30. (Currently Amended) A method for identifying a work from data received by an analysis module that generates a representation of said data and wherein said data includes data of said work comprising:

receiving a representation of the work by a First Tier Identification server;

attempting, by said First Tier Identification server, to identify said work based on comparing the received representation to a plurality of cached representations;

if the First Tier Identification server has not identified the work, determining whether said representation is a new representation based on comparing the received representation to

previously received unidentified representations maintained in a data record, wherein the received representation is a new representation [[if]]when the received representation is not similar to a previously received unidentified representation;

whenif said received representation is a new representation, adding the received representation to the data record; and

whenif said received representation is not a new representation, sending said received representation to a Second Tier Identification server for identification, wherein said received representation is not sent to the at least one Second Tier identification server [[if]]when said received representation is a new representation.

31. (Previously Presented) The method of claim 30, wherein said Second Tier Identification server includes a plurality of tiers of Identification servers.

32. (Previously Presented) The method of claim 30, further including the act of providing a reference database of representations expected to be detected on said First Tier Identification server.

33. (Currently Amended) A system for identifying a work using an N Tiered Identification server system wherein said work is included in data received by an analysis module and wherein said analysis module generates a representation of said data and transmits said representation to said N tiered Identification Server system comprising:

a Tier N server including a database of a first plurality of representations of identified works and a list of previously received unidentified representations; and

at least one Tier N+1 server including a database of a second plurality of representations

of identified works;

wherein said Tier N server is configured to receive a representation and attempt to identify a work by comparing said representation to representations in said first plurality of representations, to compare said representation to the previously received unidentified representations in the list [[if]]when said representation does not correspond to one of said first plurality of representations, and to send said representation to said Tier N+1 server for identification [[if]]when said representation is similar to one of said previously received unidentified representations, wherein [[if]]when the representation is not similar to one of said previously received unidentified representations, the representation is not sent to said Tier N+1 server.

34. (Previously Presented) The system of claim 33, wherein said at least one Tier N+1 server is configured to notify said Tier N server of a repeating segment if a repeating segment is identified.

35. (Previously Presented) The system of claim 33, wherein each successive said at least one Tier N+1 server includes a database larger said database of said N Tier server.

36. (Previously Presented) The system of claim 35, wherein all said at least one N+1 tiers operate in parallel.

37. (Previously Presented) The system of claim 36, wherein the operation of said N+1 tiers is aborted upon the identification of an unknown segment by a member of said successive tiers.

38. (Previously Presented) The system of claim 33, further including a set of smaller Tier N-

servers having databases smaller than said Tier N+1 server.

39. (Currently Amended) A system for identifying new media comprising:

means for receiving a representation of a work by a First Tier Identification server;

means for attempting, by said First Tier Identification server, to determine whether said work from said representation is identifiable based on comparing the received representation to a plurality of cached representations;

means for determining whether said representation is similar to a previously received unidentified representation based on comparing the received representation to a list of unidentified representations [[if]]when said work is not identified;

means for adding the received representation to the list of unidentified representations [[if]]when said representation is not similar to an unidentified representation in the list;

means for sending said representation to a Second Tier Identification server for identification [[if]]when said representation is similar to a previously received unidentified representation, wherein [[if]]when the representation is not similar to the previously received unidentified representation, the representation is not sent to the Second Tier identification server; and

means for caching said representation in the First Tier Identification server [[if]]when the representation is identified by the Second Tier Identification server.

40. (Previously Presented) The system of claim 39, wherein said Second Tier Identification server includes a plurality of tiers of Identification servers.

41. (Previously Presented) The method of claim 39, further including means for providing a

reference database of representations expected to be detected on said First Tier Identification server.

42. (Currently Amended) A program storage device readable by a machine containing a set of instructions to perform a method by the machine, the method comprising:

receiving a representation of a work by a First Tier Identification server, wherein the representation was generated from at least a portion of a data stream that included the work;

attempting, by said First Tier Identification server, to identify said work based on comparing the received representation to a plurality of cached representations;

when~~if~~ the First Tier Identification server has not identified the work, determining whether said representation is similar to a previously received unidentified representation; and

when~~if~~ said representation is similar to the previously received unidentified representation, sending said received representation to a Second Tier Identification server for identification, wherein ~~[[if]]~~when the representation is not similar to the previously received unidentified representation, the representation is not sent to the Second Tier identification server.

43. (Previously Presented) The device of claim 42, wherein said Second Tier Identification server includes a plurality of tiers of Identification servers.

44. (Previously Presented) The device of claim 42, further including means for providing a reference database of representations expected to be detected on said First Tier Identification server.

45. (Previously Presented) The media identification system of claim 1, further comprising:

the at least one First Tier identification server to add said representation to an index of unidentified representations if said representation is not similar to any previously received unidentified representation.